Applicants have amended the specification on these pages to insert the sequence identification numbers. Applicants have also corrected minor errors on page 66 of the specification.

Applicants have cancelled claims 12, 24, 26, 27, and 39. Thus, claims 13 to 23, 25, and 28 to 38 are pending in the present application. Applicants reserve the right to pursue claims to any cancelled subject matter in continuation applications. Applicants have amended claims, following the suggestions of the Examiner. For the Examiner's convenience, Applicants have attached a copy of the amended claims to this response.

No new matter has been added by way of these amendments.

In the Office Action dated November 6, 2000, the Examiner made five rejections of the claims. In response, Applicants respectfully submit the following remarks.

1. Rejections under 35 USC §101

The Examiner has rejected claim 27 under 35 USC §101, on the basis that the claimed invention lacks a utility. Applicants respectfully submit that the claimed polynucleotide has utility (*e.g.,* for production of antibodies to the encoded polypeptide). Nevertheless, Applicants have cancelled claim 27 to expedite prosecution. Thus, this basis for rejection now is moot.

In view of the amendments and remarks above, Applicants respectfully request the Examiner to withdraw the rejection of the claims under §101. Reconsideration of the claims is respectfully requested.

2. First Rejection under 35 USC §112, First Paragraph

The Examiner has rejected claim 27 under 35 USC §112, first paragraph, for reasons noted above. Since Applicants have cancelled claim 27, this basis for rejection now is moot.

In view of the amendments and remarks above, Applicants respectfully request the Examiner to withdraw the rejection of the claims under §112, first paragraph. Reconsideration of the claims is respectfully requested.

3. Second Rejection under 35 USC §112, First Paragraph

The Examiner has rejected claims 12 and 24 under 35 USC §112, first paragraph, on the grounds that the specification does not provide a written description of the claimed subject matter. To expedite prosecution, Applicants have cancelled claims 12 and 24. This basis for rejection, therefore, now is moot.

In view of the amendments and remarks above, Applicants respectfully request the Examiner to withdraw the rejection of the claims under §112, first paragraph. Reconsideration of the claims is respectfully requested.

4. Third Rejection under 35 USC §112, First Paragraph

The Examiner has rejected claim 26 under 35 USC §112, first paragraph, on the grounds that the specification does not enable the claimed subject matter. To expedite prosecution, Applicants have cancelled claim 26. This basis for rejection, therefore, now is moot.

In view of the amendments and remarks above, Applicants respectfully request the Examiner to withdraw the rejection of the claims under §112, first paragraph. Reconsideration of the claims is respectfully requested.

5. Fourth Rejection under 35 USC §112, First Paragraph

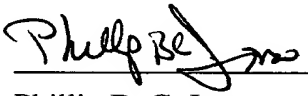
The Examiner has rejected claim 39 under 35 USC §112, first paragraph, on the grounds that the specification does not enable the claimed subject matter. To expedite prosecution, Applicants have cancelled claim 39. This basis for rejection, therefore, now is moot.

In view of the amendments and remarks above, Applicants respectfully request the Examiner to withdraw the rejection of the claims under §112, first paragraph. Reconsideration of the claims is respectfully requested.

Conclusion

Reconsideration of the application and its allowance are requested. If for any reason the Examiner feels that a telephone conference would expedite prosecution of the application, the Examiner is invited to telephone the undersigned at (206) 442-6681.

Respectfully Submitted,
ZymoGenetics, Inc.



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Amended Claims

13. An isolated polynucleotide molecule that encodes a polypeptide comprising amino acid residues 48 to 78 of SEQ ID NO:2.

14. The isolated polynucleotide molecule of claim 13, wherein the polynucleotide molecule comprises nucleotides 317 to 409 of SEQ ID NO:1.

15. A composition comprising the isolated polynucleotide molecule of claim 13.

16. The isolated polynucleotide molecule of claim 13, wherein the polynucleotide molecule is a DNA molecule.

17. A vector, comprising the isolated polynucleotide molecule of claim 13.

18. The isolated polynucleotide molecule of claim 13, wherein the polynucleotide molecule encodes a polypeptide comprising amino acid residues 18 to 78 of SEQ ID NO:2.

19. The isolated polynucleotide molecule of claim 18, wherein the polynucleotide molecule comprises nucleotides 227 to 409 of SEQ ID NO:1.

20. The isolated polynucleotide molecule of claim 13, wherein the polynucleotide molecule encodes a polypeptide comprising amino acid residues 18 to 385 of SEQ ID NO:2.

21. The isolated polynucleotide molecule of claim 20, wherein the polynucleotide molecule comprises nucleotides 227 to 1330 of SEQ ID NO:1.

22. The isolated polynucleotide molecule of claim 13, wherein the polynucleotide molecule encodes a polypeptide comprising amino acid residues 1 to 385 of SEQ ID NO:2.

23. The isolated polynucleotide molecule of claim 22, wherein the polynucleotide molecule comprises nucleotides 176 to 1330 of SEQ ID NO:1.

25. An isolated polynucleotide molecule that encodes the amino acid sequence of SEQ ID NO:7.

28. An isolated polynucleotide molecule comprising a nucleotide sequence that is complementary to the nucleotide sequence of SEQ ID NO:1.

29. An expression vector, comprising a polynucleotide molecule that encodes a polypeptide comprising amino acid residues 18 to 78 of SEQ ID NO:2, a transcription promoter, and a transcription terminator, wherein the promoter is operably linked with the polynucleotide molecule, and wherein the polynucleotide molecule is operably linked with the transcription terminator.

30. The expression vector of claim 29, wherein the polynucleotide molecule encodes a polypeptide comprising amino acid residues 18 to 385 of SEQ ID NO:2.

31. A host cell comprising the expression vector of claim 29, wherein the host cell is selected from the group consisting of bacterium, yeast cell, fungal cell, insect cell, mammalian cell, and plant cell.

32. The host cell of claim 31, wherein the host cell is a bacterial host cell, which is either an *E. coli* cell or a *Bacillus* cell.

33. The host cell of claim 31, wherein the host cell is a fungal cell, which is either a *Saccharomyces* cell or a *Pichia* cell.

34. The host cell of claim 31, wherein the host cell is a mammalian cell.

35. The host cell of claim 34, wherein the mammalian cell is a human cell.

36. A method of using the expression vector of claim 29 to produce a protease activated receptor-4 polypeptide, the method comprising the act of culturing host cells that comprise the expression vector and that produce a protease activated receptor-4 polypeptide.

37. The method of claim 36, further comprising the act of isolating the protease activated receptor-4 from the cultured host cells.

38. A virus, comprising the expression vector of claim 29.